(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide comprises SEQ ID NO:2, or a minor modification of SEQ ID NO:2 that transduces a G-protein coupled signal in response to ADP-glucose; and

(b) identifying a candidate compound that alters production of said signal, said compound being characterized as a ADP-receptor agonist or antagonist.

3. (Amended) A method of identifying an ADP-glucose receptor agonist or antagonist, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) identifying a candidate compound that alters production of said signal, said compound being characterized as a ADP-receptor agonist or antagonist.

7. (Amended) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds under conditions wherein said receptor selectively binds ADP-glucose, wherein said ADP-glucose receptor polypeptide comprises SEQ ID NO:2, or a

minor modification of SEQ ID NO:2 that transduces a G-protein coupled signal in response to ADP-glucose; and

(b) identifying a candidate compound that selectively binds said ADP-glucose receptor polypeptide, said compound being characterized as an ADP-receptor ligand.

9. (Amended) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds under conditions wherein said receptor selectively binds ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) identifying a candidate compound that selectively binds said ADP-glucose receptor polypeptide, said compound being characterized as an ADP-receptor ligand.

12. (Amended) A method of identifying an ADP-glucose receptor agonist or antagonist, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds in the presence of ADP-glucose under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide comprises SEQ ID NO:2, or a minor modification of SEQ ID NO:2 that transduces a G-protein coupled signal in response to ADP-glucose; and

(b) identifying a candidate compound that alters production of said signal, said compound being characterized as a ADP-receptor agonist or antagonist.

14. (Amended) A method of identifying an ADP-glucose receptor agonist or antagonist, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds in the presence of ADP-glucose under conditions wherein said receptor produces a G-protein coupled signal in response to ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) identifying a candidate compound that alters production of said signal, said compound being characterized as a ADP-receptor agonist or antagonist.

17. (Amended) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds in the presence of ADP glucose under conditions wherein said receptor selectively binds ADP-glucose, wherein said ADP-glucose receptor polypeptide comprises SEQ ID NO:2, or a minor modification of SEQ ID NO:2 that transduces a G-protein coupled signal in response to ADP-glucose; and

(b) identifying a candidate compound that selectively binds said ADP-glucose receptor polypeptide, said compound being characterized as an ADP-receptor ligand.

19. (Amended) A method of identifying an ADP-glucose receptor ligand, comprising:

(a) contacting an ADP-glucose receptor polypeptide with one or more candidate compounds in the presence

of ADP glucose under conditions wherein said receptor selectively binds ADP-glucose, wherein said ADP-glucose receptor polypeptide has the amino acid sequence designated SEQ ID NO:2; and

(b) identifying a candidate compound that selectively binds said ADP-glucose receptor polypeptide, said compound being characterized as an ADP-receptor ligand.

Please add new claims 34 to 45, as follows:

--34. (New) The method of claim 1, wherein said ADP-glucose receptor polypeptide has at least 85% identity to the amino acid sequence designated SEQ ID NO:2.

35. (New) The method of claim 1, wherein said ADP-glucose receptor polypeptide has at least 95% identity to the amino acid sequence designated SEQ ID NO:2.

36. (New) The method of claim 1, wherein said ADP-glucose receptor polypeptide has at least 99% identity to the amino acid sequence designated SEQ ID NO:2.

37. (New) The method of claim 7, wherein said ADP-glucose receptor polypeptide has at least 85% identity to the amino acid sequence designated SEQ ID NO:2.

38. (New) The method of claim 7, wherein said ADP-glucose receptor polypeptide has at least 95% identity to the amino acid sequence designated SEQ ID NO:2.

39. (New) The method of claim 7, wherein said ADP-glucose receptor polypeptide has at least 99% identity to the amino acid sequence designated SEQ ID NO:2.

40. (New) The method of claim 12, wherein said ADP-glucose receptor polypeptide has at least 85% identity to the amino acid sequence designated SEQ ID NO:2.

41. (New) The method of claim 12, wherein said ADP-glucose receptor polypeptide has at least 95% identity to the amino acid sequence designated SEQ ID NO:2.

42. (New) The method of claim 12, wherein said ADP-glucose receptor polypeptide has at least 99% identity to the amino acid sequence designated SEQ ID NO:2.

43. (New) The method of claim 17, wherein said ADP-glucose receptor polypeptide has at least 85% identity to the amino acid sequence designated SEQ ID NO:2.

44. (New) The method of claim 17, wherein said ADP-glucose receptor polypeptide has at least 95% identity to the amino acid sequence designated SEQ ID NO:2.

45. (New) The method of claim 17, wherein said ADP-glucose receptor polypeptide has at least 99% identity to the amino acid sequence designated SEQ ID NO:2.--